Serial No. 10/696,517 Atty Docket DP-304939

## **AMENDMENTS TO THE SPECIFICATION**

Please amend the paragraph beginning at page 7, line 14, as follows:

Referring to the drawings, illustrated in FIG. 1 is a generalized depiction of one embodiment of a mount and control system of the present invention indicated at 100 10. Mount assembly 11, 50 are attached to an engine 20 by a fastener, a stud, or the like, not shown in the present figure. Similarly, mount assemblies 11, 50 are attached to a vehicle body or frame member 25 such that the mount rests between engine 20 and frame member 25. The mount assemblies 11, 50 interact with the controllers 30, 40 to alter the flow characteristics of the MR fluid, thereby changing the vibration damping characteristics. The controllers 30, 40 can be any electrically controlled device, combined into one unit or separate, such as a microprocessor or a digital signal processor, providing the capability of altering the ability of the mount to change the damping characteristics. The controllers 30, 40 are connected to the engine mounts 11, 50 via any one or more electrical field generating devices, such as a coil or the like.

Please amend the paragraph beginning at page 8, line 10, as follows:

FIG. 2 illustrates an embodiment of a MR mount 200 100 of the present invention. The mount assembly 200 100 can include a disc shaped orifice plate 130 and a coil 110 wrapped in or adjacent a metal mounting ring, member or housing 120. The mounting member 120 may be positioned between a base plate 180 and a hollow flexible

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body 150. The base plate 180 and body 150 can each include a respective mounting stud 160, 190.

Please amend the paragraph beginning at page 8, line 15, as follows:

The mount also can comprise a first chamber 170 defined in part by the body 150. Elastomeric materials, including natural or synthetic rubber, silicon elastomer, and thermoplastic elastomer, can be used to form the body 150. An elastomeric diaphragm 185 can be bonded to a surface of the housing 180 to define a second chamber 175. The coil 110 is positioned to generate an electrical field across gap 195 formed between the orifice plate 130 and coil 110 or member 120. The orifice plate 130 can be positioned to divert the flow of fluid in the mount assembly 200 100 adjacent the coil 110 to influence the shear resistance characteristics of the fluid.

Please amend the paragraph beginning at page 10, line 21, as follows:

Referring to the drawings, FIG. 3 illustrates an embodiment of a control loop structure 300 consisting of a generalized plant and a controller model 200. The control loop structure is known in the art as a 2-port representation of a plant. The loop structure is selected for compatibility with the requirements of a particular design. In general, since the performance specifications are frequency based, namely the band of frequencies around the resonance frequency for engine bounce, the objectives can be specified in the frequency domain directly, avoiding the need to convert to time domain specifications.

Please amend the paragraph beginning at page 12, line 16, as follows:

In FIG. 4A/B, a flow diagram of a control algorithm  $\underline{400}$  300 provides further detail of an embodiment of designing the left and right controllers 30, 40. A first tunable parameter  $\gamma$  can be selected (Block 305). The tunable parameter  $\gamma$  is the upper bound of the objective function obtained by taking the weighted sensitivity transfer of the closed loop system. The value of  $\gamma$  is typically fixed at 1, but when changed, it is usually increased, indicating that a decreased performance of the controller is acceptable.